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[redacted]3001-63
Copy 6 of 8

12 August 63

MEMORANDUM FOR THE RECORD

SUBJECT : Factors Affecting the J58 Engine Equipped A-12 Aircraft Flight Test Program

25X1A REFERENCE : [redacted]3000-63, dated 21 July 63 titled: "Factors Affecting A-12 Flight Test and Mach Number Extension"

1. As indicated in reference memorandum, much of the responsibility for slow progress since 1 April 63 is due primarily to several isolated factors resulting in excessive down time rather than to any impasse set up by the technical problems associated with the program. Attachment I tabulates these factors with their attendant delays in terms of aircraft weeks. Since 1 April 63, these factors have resulted in aircraft being utilized for flight test purposes approximately 30% of the time. The largest single delaying influence, occurring largely in April and May, was Foreign Object Damage. Improvement in this area has been substantial. The second largest single factor was and still 25X1A is aircraft final assembly at [redacted] prior to first flight. Minimum activity in terms of numbers of Lockheed people is the crux of this second largest factor which also involves layup and turnaround time not reflected in the Attachment.

2. Attachment II, Sheet 1, showing the J58 equipped aircraft flight hours per week rate versus calendar time may be compared with the above cited Attachment I. Obviously had it not been for items 6 through 9 of Attachment I, costing 14 1/2 aircraft weeks, the maximum achieved rate during July could have been sustained and exceeded.

3. Since Foreign Object Damage has been the subject of several other memoranda it needs no further discussion at the moment. Aircraft 25X1A final assembly time at [redacted] is again felt worthy of mention. The conservative planning factor used early in the program by Headquarters was 6 weeks for aircraft preparation for flight after delivery. Mr. Johnson preferred the more optimistic figure of 4 weeks. Attachment III lists the experience accumulated on all aircraft to date, much of

SECRET

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25X1A

which occurred prior to 1 April 63 and therefore is not reflected in Attachment I. With the exception of the OXCART aircraft #123 and the initial USAF AF-12 aircraft #1001 which was completed in 5 1/2 weeks, most assembly times are running from two to three months.

SIGNED

25X1A [redacted]

Aircraft Systems Division
(Special Activities)

Attachments I, II, and III

cc: DD/S&T t h r u AD/OSA

25X1A [redacted] ASD/OSA:mvp (12 Aug 63)

Distribution:
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ATTACH I
SHEET I

J58 AIRCRAFT DOWN TIME SINCE 1 APRIL '63
Applicable to Several Apparent Major Factors
12 Aug 1963

A.	FACTOR	AIRCRAFT	APPROXIMATE DATES	AIRCRAFT WEEKS OF DOWN TIME SINCE 1 APRIL 1963	
1.	Arc. 50 Modification	125	April		4
2.	Foreign Object Damage and Resulting Anti-FOD Modifications	121 122 125 126 127	4/26 - 5/17 5/2 - 5/22 5/2 - 6/17 4/20 - 6/11 8/2 - 8/10	4 3 6 7 1	21
3.	Weather	all	Apr - June		2
4.	Aircraft 123 Accident	all	5/24		4
5.	Engine 223 Bearing Failure	all	6/26		4
6.	Aircraft 122 Incident	122	7/19 -		3½
7.	Modification to Activate Operating Inlet-Automatic Controls Installation	125 126	7/22 - 7/31	1 2	3
8.	Aircraft 121 Inlet Modifications to Redistribute Airflow Including Engine Compressor Honeycomb Problem	121	7/31 - 8/12		2
9.	Aircraft Final Assembly Time [redacted] Prior to First Flight (* only those weeks in excess of six weeks assembly time and one week FOD problems are listed)	127 128	5/15 - 8/12 7/12 - ? (now in 5th week)		6*
				Total	69½

25X1A

SECRET

ATTACH I
SHEET II

Note: 1) The above tabulation based on Headquarters records deals with only those factors listed and therefore does not reflect delays or down time resulting from the day to day airframe and engine problems, flight test problems, and system maintenance and turnaround between flights.

E. There have been 19 chronological weeks since 1 April 1963. Aircraft 121, 122, and 125 have been available during these 19 weeks making a total of 3 x 19 = 57 aircraft weeks available. Aircraft 126, when adjusted to account for a 6 weeks "normal" assembly time, has been available for 13 weeks. Aircraft 127, when adjusted to account for a 6 weeks "normal assembly time, has been available for 7 weeks. Totalling the 57 13 7 yields 77 aircraft weeks available during the period since 1 April 1963. Comparing 49½ aircraft weeks of down time, only 27½ aircraft weeks of the 77 available were actually utilized. This reflects a utilization factor ($\frac{27\frac{1}{2}}{77}$) of only 36%.

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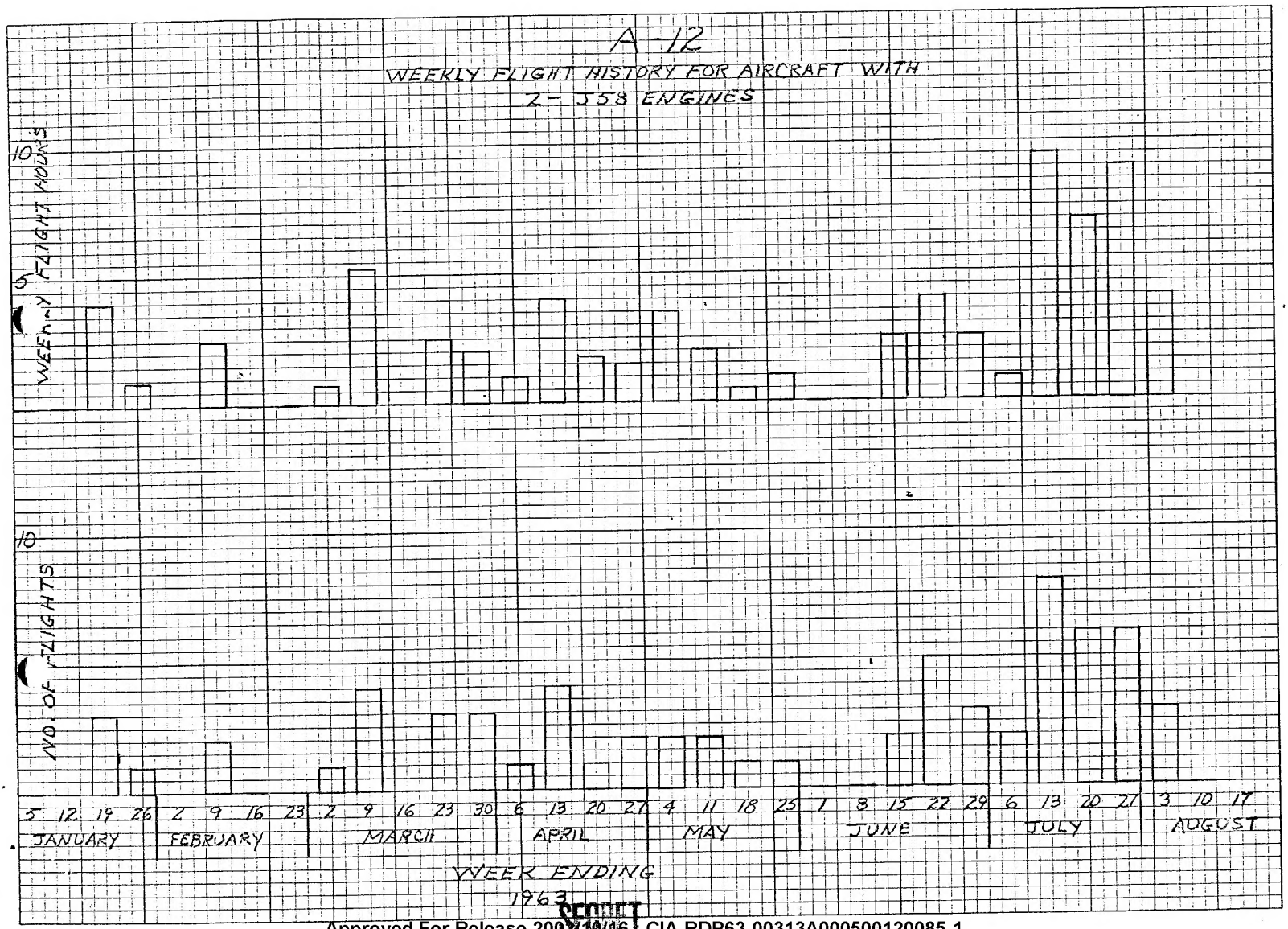
ATTACH II
SHEET 1



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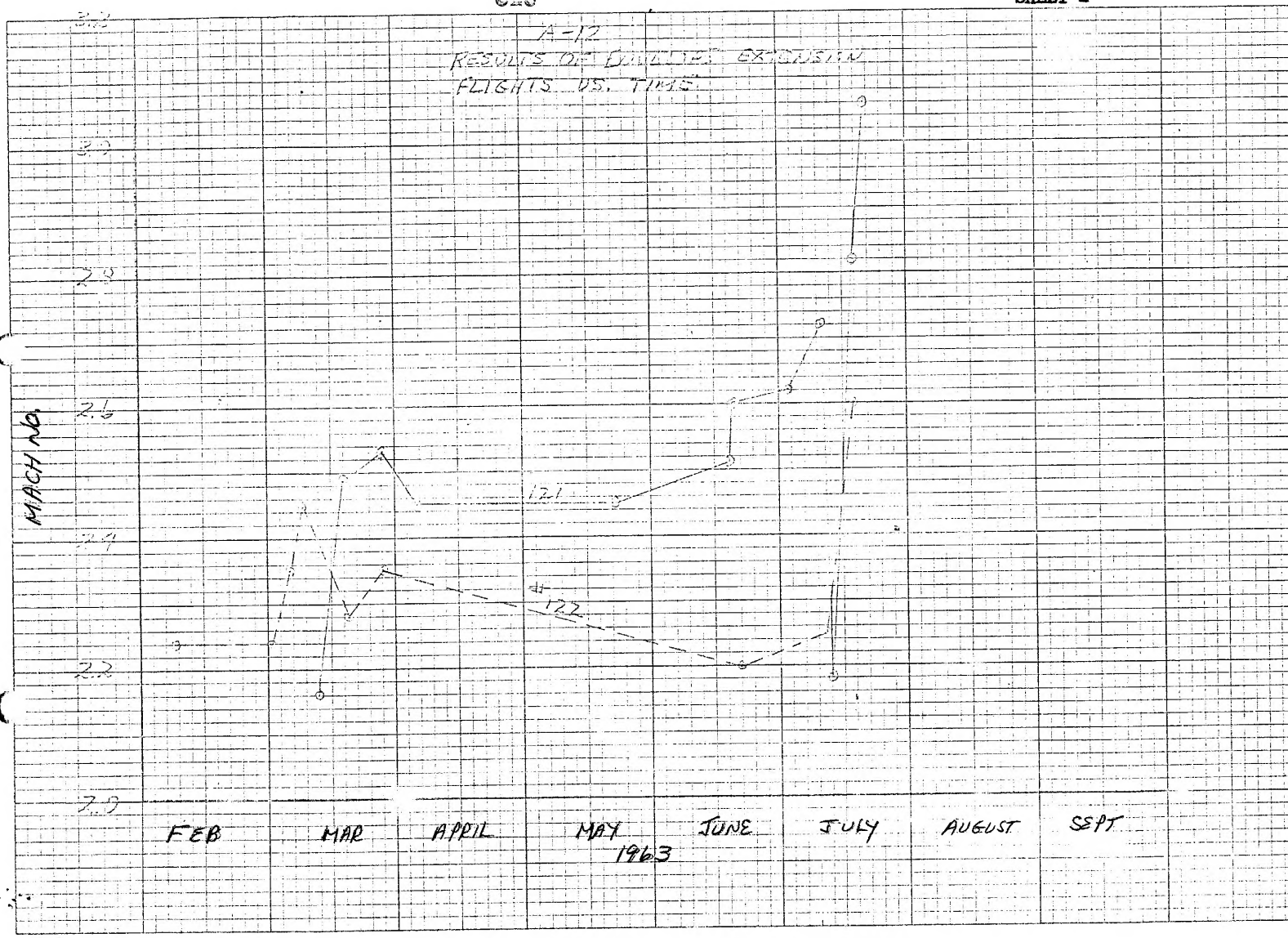
ATTACH II
SHEET 2



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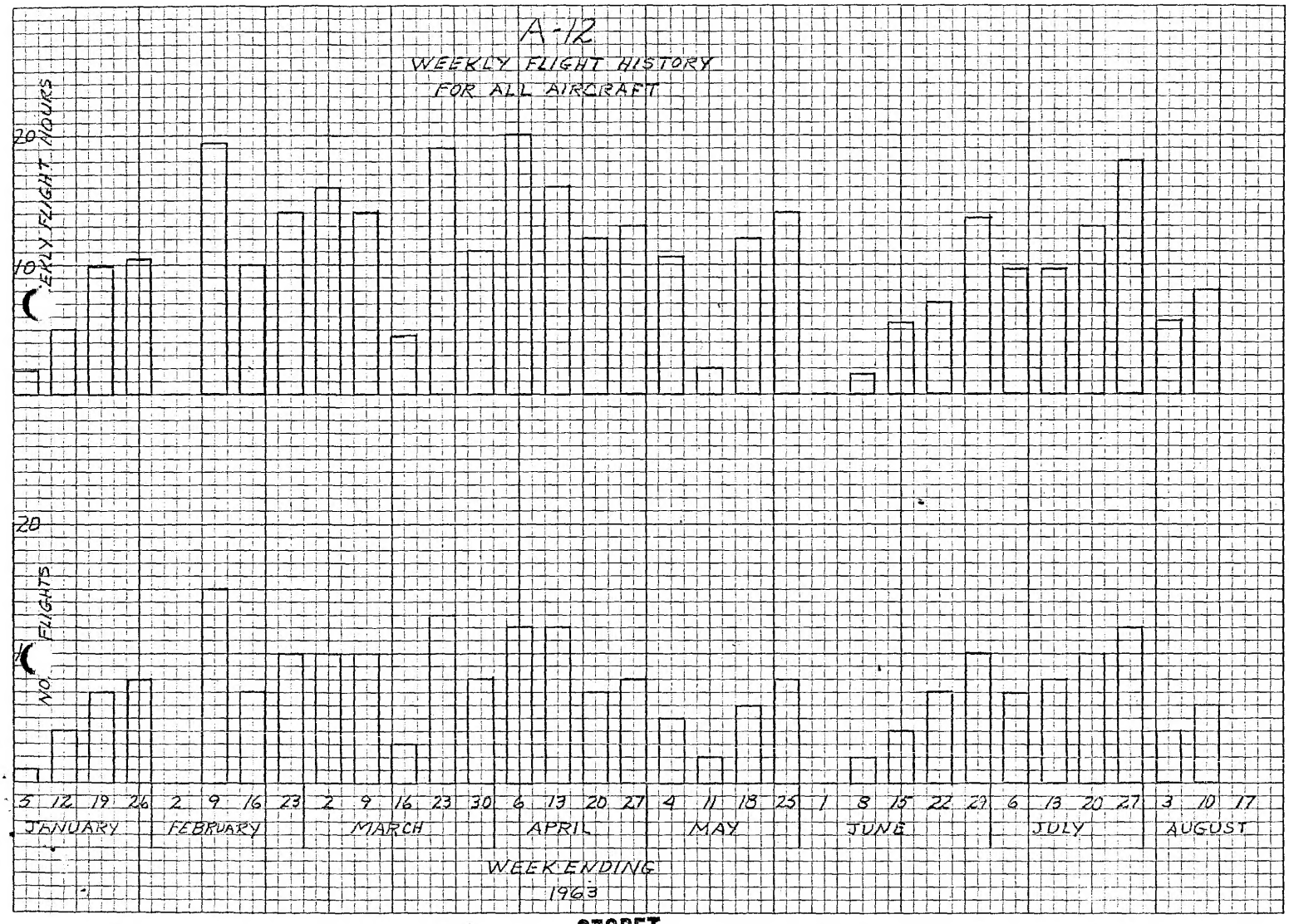
ATTACH II
SHEET 3



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ATTACH III

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AIRCRAFT FINAL ASSEMBLY EXPERIENCE [redacted]

Aircraft	Arrival Date	First Flight	Approx. Assy. Time	Second Flight
121	25 Feb 62	26 Apr 62	Two months	3 May 62
122	Jul 62	15 Jan 63	Three months AR test Three months assy.	6 Feb 63
123	Aug 62	9 Oct 62	One and one-half months	16 Oct 62
124	Nov 62	7 Jan 63	Two months	10 Jan 63
125	17 Dec 62	8 Mar 63	Three months	25 Jun 63
126	20 Mar 63	20 Jun 63	Three months	21 Jun 63
127	14 May 63	Sched. 14 Aug 63	Three months	
10011 (AF-12)	20 Jun 63	7 Aug 63	Five and one-half weeks	9 Aug 63
128	12 Jul 63			